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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/655,846 | 09/06/2000 | Hajime Tabata | 0505-0686P | 9786 |

7590 02/27/2003

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EXAMINER

NGUYEN, HUY D

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2684

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/655,846

Applicant(s)

TABATA ET AL. 

Examiner

Huy D Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spector (U.S. Patent No. 6,017,049) in view of O'Neill, Jr. (U.S. Patent No. 6,069,588).

Regarding claims 1-2, and 11, Spector discloses an interactive safety helmet for a bicyclist comprising: transceiver 16 to which microphone 19 and loudspeakers 13 and 14 are connected (FIG. 3 & 5; Col. 4, lines 62-65). Spector does not teach a repeating apparatus mounted on vehicle for communicating with the transceiver. O'Neill, Jr. discloses an inside electronic package 110 coupling the inside portion 106a to a radiotelephone 114, and is located adjacent the inside portion 106a and remote from the radiotelephone 114. The electronic package includes a receive amplifier that amplifies RF signals that are received from the outside antenna 102 via the through-the-window coaxial coupler 106 and that provides the amplified RF signal to the radiotelephone 114. The electronic package also include a transmit amplifier that amplifies RF signals from the radiotelephone 114 before being passed through the coaxial coupler. The transmit amplifier raise the transmitted power from the outside antenna 102 to desired levels (FIG. 1; Col. 4, lines 40-51). It would have been obvious to one of ordinary skill in the art at time the invention was made to include in Spector's vehicle a repeater as disclosed in O'Neill, Jr.

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since that would amplify the transmit/receive signals to the desired levels to maintain the signal quality and to conserve battery of transceiver 16.

Regarding claims 3-4, it is obvious that the transceiver could be removably mounted anywhere on the helmet for flexibility and convenience. Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to removably mount the transceiver anywhere on the helmet to provide flexibility and convenience.

Regarding claim 12, transceiver 16 comprises circuit board and battery 26 (FIG. 5).

Regarding claim 13, AAA is a standard battery size. It would have been obvious to one of ordinary skill in the art at time the invention was made to build battery accommodation section corresponding to cell size AAA since it provide convenience.

Regarding claim 14, an operation button installed on the helmet would provide convenience for the user. It would have been obvious to one of ordinary skill in the art at time the invention was made to install an operation button on the helmet to provide convenience for the user.

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spector (U.S. Patent No. 6,017,049) in view of O'Neill, Jr. (U.S. Patent No. 6,069,588) and in further view of Higuchi et al. (U.S. Patent No. 5,839,055).

Regarding claims 5-7, Spector and O'Neill, Jr. do not disclose that the repeating apparatus includes a sound mixing apparatus. Higuchi et al. disclose a narrow band radio transceiver in which the low tone DTMF signal sent out from the DTMF generator 7 is mixed with the speech sound from the microphone 1 passing through the high pass filter 2 in the mixing

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circuit 3, and passes through the low pass filter 4, and is sent from the transmitter 5 through the transmission antenna 6 (FIG. 1; Col. 3, lines 16-21). It would have been obvious to one of ordinary skill in the art at time the invention was made to include in O'Neill, Jr.'s repeating apparatus a sound mixing apparatus as disclosed in Higuchi et al. since it would provide pleasant sound to the user.

Regarding claim 8, Higuchi et al. disclose mute circuit 19. It would have been obvious to one of ordinary skill in the art at time the invention was made to include in O'Neill, Jr.'s repeating apparatus a mute circuit as disclosed in Higuchi et al. since it provide convenience for the user.

Claims 9-10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spector (U.S. Patent No. 6,017,049) in view of O'Neill, Jr. (U.S. Patent No. 6,069,588) and in further view of Ishibashi (U.S. Patent No. 6,111,964).

Regarding claims 9-10 & 15, Spector and O'Neill, Jr. do not disclose the navigation system. Ishibashi discloses navigation system 61 which detects the current position of the automobile 50 based on radiowaves received from satellites and running conditions of the automobile 50, reads road map information in the vicinity of the detected position from a map information storage medium such as an optical disk, and displays a road map and ancillary information based on the road map information on a display unit 64 which is positioned so as to be visible to the driver (FIG. 11; Col. 6, lines 29-36). It would have been obvious to one of ordinary skill in the art at time the invention was made to include a navigation system as disclosed in Ishibashi since that would aid the driver in finding locations.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Gray (U.S. Patent No. 5,678,205) teaches combination head-protective helmet and communication system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huy D Nguyen whose telephone number is 703-305-3283. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Hunter can be reached on 703-308-6732. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-6750.

HN
February 21, 2003


WILLIAM COMMING
PRIMARY EXAMINER
GROUP 2600

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